



Rico Voluntary Cleanup Program (VCUP)

February 24 & 26, 2022

Rico Town Hall

VCUP Program Statewide & in Rico

VCUPs are common throughout the state and country

Town, AR and CDPHE have been discussing the VCUP for years; negotiations stalled in 2014; restarted in 2017

Separate from work AR is doing to address releases from the St. Louis Tunnel outside of Rico and past VCUPs in Rico

Where are we now?

VCUP Application

- Town and AR jointly submitted VCUP application to CDPHE
- Describes the three phases of work
- Includes draft language for amendment to Land Use Code to regulate lead soil management

Lead Action Levels (LALs)

- CDPHE toxicologists (here today) are currently re-evaluating data to develop approvable Rico-specific LALs that will be protective of public health
- Town and AR must agree on LALs for VCUP to be effective

Funding Agreement

- Town and AR are negotiating funding agreement
- Town and AR must agree on funding for VCUP to be effective

Where are we now? Continued

Land Use Code Amendment

- Town will consider amendments to Rico Land Use Code to regulate management of soil above action levels and ensure cleaned-up property stays clean
- These regulations are required for VCUP to be effective

Intergovernmental Agreement (IGA)

- Town and CDPHE negotiating an agreement that will allow CDPHE to enforce lead soil management regulations as a backstop to Town enforcement

Goal by Start of Construction Season

Finalize VCUP Application
and Secure CDPHE Approval

Agree upon LALs with AR
and CDPHE

Finalize and execute:
--Funding Agreement with
AR
--IGA with CDPHE

Finalize and adopt
amendments to Rico Land
Use Code to address lead in
soil

Financial Benefits AR will Provide to the Town

Annual stipend of 25% of Town Manager's salary

Town fund to reimburse property owners for costs of complying with Soil Management Program (\$75,000 to start; replenish each year)

Pay for Town Subcontractor to serve as liaison between Town and Soil Management Program Contractor when Contractor managed by AR

Pay for Soil Management Program Contractor when Contractor managed by Town

Pay for remediation of surface of Town roads where lead concentration exceeds action level

Stipend to Town for expenses Town incurs administering road remediation project

Reimburse Town for certain costs, expenses, and attorney's fees related to implementation of Soil Management Regulations

Additional Benefits AR Will Provide to the Town

Sampling or payment for sampling of soil at properties not previously sampled

Remediation of developed properties with lead above action level

Maintenance of Lead Soil Repository to accept soil with lead above action level

Technical assistance to property owners conducting excavation activities (help with permits, answer questions, provide guidance)

Provision of clean fill dirt and remediation materials such as fabric marker

GIS database showing soil sample results and remediation status of properties in Town

Meeting Ground Rules (1 of 2)



Not our first public meeting and not our last



Negotiation ongoing—meeting now to keep town informed



Hear more details about VCUP program, then opportunity for questions, breakout discussions

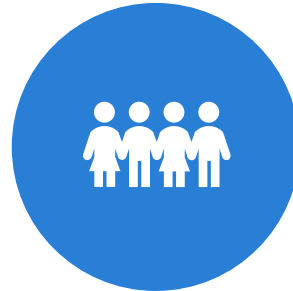


Handouts available and posted online

Meeting Ground Rules (2 of 2)



Please wait to be called on during the Q&A, then quickly come to the mic



Please be respectful, no profanities, outbursts – or you will be asked to leave



Comments and questions will be limited to two minutes



Please do not interrupt presenters or members of the public

VCUP Program in Colorado

- 73 VCUPs in 2021; over 1,500 since program began in 1994
- VCUP based on existing or site-specific Risk Based Cleanup Standards
 - Risk Based Cleanup is a standard process for environmental cleanup projects. Cleanup standards are based on use – residential use will have strictest cleanup standard.
- VCUP projects where large housing developments have occurred
 - **Gold Hill Mesa:** Over 500 single-family homes and multi-unit residences on 210-acre mill tailings site
 - **Stapleton Airport Redevelopment:** Mixed-use residential (over 30,000 residences), commercial, industrial
 - **Idalia Court:** 42 residential units on old landfill
 - **Iron Works Village:** 136 single-family homes at 1920s metal foundry

Rico VCUP Program— Phase 1

AR conducts sampling at developed lots that have not yet been tested. AR will only conduct sampling with property owner permission. Property owners are encouraged to give permission. If not, owners risk not receiving benefits of the VCUP.

AR completes remediation at developed lots and roads where testing shows lead in soils exceeds action levels

AR evaluates previously remediated properties for testing if soil cap has been disturbed, remediation if necessary

AR conducts sampling at undeveloped properties and puts sampling data in GIS database for property owner's future use

Rico VCUP Program— Phases 2 & 3

Permit program for activities disturbing
1 cubic yard or more of soil

Property owners responsible for conducting
work, with technical support from Rico Soils
Management Program and clean soil
provided free of charge

AR provides oversight of Rico Soils
Management Program contractor in Phase 2,
Town provides oversight in Phase 3 with
financial support from AR

Rico VCUP Program—All Phases

Top 12” of soil with lead levels above the lead action level (LAL) removed, brought to repository

Fabric marker placed in excavation, 12” of clean soil placed on top

Disturbed area revegetated

Property owner maintains soil cap

AR provides money to Town to reimburse property owners for additional costs of program compliance. (per a schedule based on volume of soil excavated).

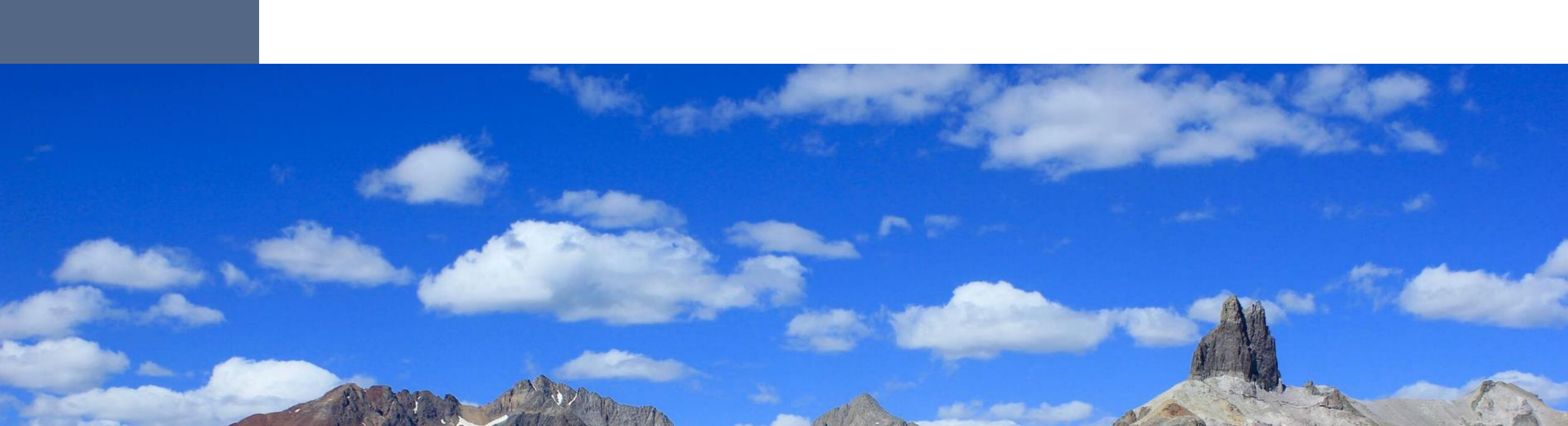
AR also provides access to repository and materials such as clean soil and soil marker layer.

Rico VCUP Program—Roads

AR funds design and implementation of work to remediate unpaved road segments with lead above action levels

Town oversees contractor doing work—with stipend from AR

Still negotiating some elements, including how to address drainage issues and improvements



Health Consult and Lead Action Levels



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Department of Public
Health & Environment

RICO TOWNSITE VOLUNTARY CLEANUP AND REDEVELOPMENT PROGRAM

Public Health Action Plan



Kristy Richardson, *State Toxicologist*
Tom Simmons, *Human Health Risk Assessor*



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Department of Public
Health & Environment

Introductions

The Toxicology and Environmental Epidemiology at CDPHE evaluates how environmental exposures could harm people's health. We have two jobs in Rico.

Risk evaluation of soil lead

- Work with the town and state Hazardous Materials and Waste Management Division.
- Propose a new risk-based lead action level for soil.
- Used to identify properties for cleanup.

Health consultation

- Work with residents and the Agency for Toxic Substances and Disease Registry (ATSDR).
- Evaluate risks from former mining activities and offer recommendations to protect health.
- Community input is key.

Lead in the environment



Lead-based paint in homes built before 1978 and in imported toys.



Home remedies like Greta, Azarcon, Alacron, Rudea or Pay-loo-Ah.



Imported, glazed pottery that may be used for cooking.



Imported spices: turmeric, coriander, black pepper, thyme, & hanuman sindoor.



Lead-containing soil or dust that is tracked into the home.



Hobbies: leaded bullets or fish sinkers, artist paints, furniture refinishing.



Work in industries like construction, mining, welding, and plumbing.



Water in pipes from homes built before 1986

- Lead occurs naturally in Colorado's soil and rocks.
- There are many other common sources of lead.
- Most people have a small amount of lead in their bodies.
- Reducing exposure from all sources lowers risk of potential health impacts.

Technical memo: Risk evaluation of lead in soil

- Use updated guidance and methods to evaluate potential health effects from lead in soil and mine waste.
- Follows a standard process from EPA.
- Will be used to develop a lead action level that will determine which properties need cleanup to reduce the risk of lead in soil.



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Factors that help determine a soil cleanup level

EPA target blood lead level

Federal and state agencies use this number, and many other factors, to develop a soil cleanup level at a contaminated site. The level varies by site.* The target blood lead level helps reduce risk to children in a community from one source of lead.

*The target blood lead level is 10 µg/dL or lower, depending on the site. EPA is reassessing this number.

How much lead is naturally in the soil in this area?

How much lead comes from past activities at the site?

How can we reduce exposure in soil at this site?

Soil cleanup level

How much lead do children absorb into their bodies from this soil?

Do children live, go to school, or play in this area?

Will the target blood lead level reduce risk from soil at this site?

Technical Memo: Background lead evaluation

- How much lead is naturally occurring (background) and how much is from mining activities?
- Risk-based lead action levels are not usually lower than background levels.



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Purpose of a health consultation

Evaluate specific public health issues related to human exposure to toxic substances.

- Assess community concerns.
- Analyze existing data to determine whether people are at risk.
- Make recommendations to prevent harmful exposures.
- Identify data gaps that prevent us from answering questions about health risks.



Community concerns

Your input is key to helping us understand potential mine waste exposures and other health concerns.



Community concerns: Blood lead testing



- What questions do we want to answer?
- Would a testing clinic provide better information?



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Reduce your risk

- Know the common sources of lead.
- Regularly wash with soap and water.
- Keep dirt outside.
- Create safe places to play.
- Garden safely.
- Eat healthy.
- Maintain your home.

Dirt alert!

The soil you come into contact with every day may contain heavy metals, such as lead, arsenic, and mercury, that can get into your body by accidentally eating or breathing in dirt and dust particles. Luckily, you can take simple actions to protect yourself and your family.

HEALTHY HOME BEST PRACTICES

Regularly wash with soap and water



Hands, especially for children after playing and before eating (*make it a washing game or contest*).

- Toys, bottles, and pacifiers.
- Fruits and vegetables.
- Garden tools.
- Floors (use a mop).
- Surfaces and windowsills.



Keep dirt outside

- Remove and clean shoes before you come in to avoid tracking dirt through the house.
- Use doormats to clean shoes before going inside.
- Leave gardening tools outside.

Create safe places to play

- Don't allow kids to play in bare soil along the sides of buildings or under porches.
- Keep play areas away from old buildings, roads, and suspected mine waste.
- Make sure sandboxes are clean and filled with new sand before using.



Garden safely

- Use raised garden beds with store-bought soil.
- Don't garden next to buildings or roads.
- Remember to wear gloves.



Eat healthy

- Eat a variety of foods rich in iron, calcium, and vitamins A, B, C, and E to reduce the effects of lead and arsenic.

Maintain your home

- If you have a home built before 1979, you may have lead-based paint.
- Keep the paint in your home in good condition to reduce peeling, chipping, or flaking paint.
- Do not remove the paint yourself.
- Hire EPA lead-safe certified contractors.
- Replace air filters regularly.



WHY HEAVY METALS MIGHT BE IN THE SOIL

Heavy metals are found naturally in some soil. Other sources include industrial and mining sites. Soil near roads may be contaminated as well. Older homes may have lead paint and arsenic-treated wood, and newer industrial sites might have arsenic-treated wood. The materials can peel, chip, and splinter, and end up in the soil.

More information

Arsenic: www.atsdr.cdc.gov/toxfaqs/tf.asp?id=19&tid=3

Lead: www.atsdr.cdc.gov/toxfaqs/TF.asp?id=93&tid=22

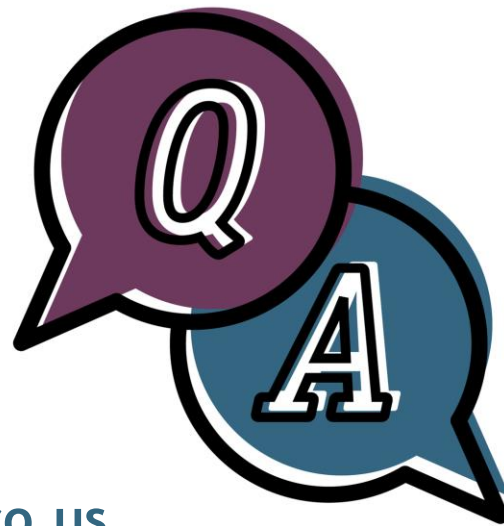
Share your questions and concerns

- In person

Today at the Q&A Session

- ToxCall

303-692-2606 | cdphe_toxcall@state.co.us



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Input from EPA



Summarizing VCUP Benefits

AR provides financial support, technical support, and materials

In Phase 1, AR will remediate all developed lots in town that have lead above action levels

AR pays to remediate town roads

AR provides access to repository for soil exceeding action level

Protects public health and the environment

Will minimize unnecessary disturbance of town environment through phased approach

VCUP Program Phase 1

Phase 1 – Starts when agreements are signed and continues until work is complete (field work planned for 2022 to 2024)

- AR samples all unsampled lots*
- AR remediates all developed properties*, if necessary
- AR funds and Town supervises road remediation

*Only with consent of owner

VCUP Program Phase 2

Phase 2 – Starts at the same time as Phase 1 and continues for 3 years or until 15 properties are developed (whichever is longer)

- AR manages Soil Management Program Contractor to provide technical support, assistance and guidance to owners
- AR accepts lead soil at repository, funds account managed by Town to pay incremental costs for owners, pay Town administrative costs
- Property owners comply with Soil Management Regulations, including requirements to remediate property and maintain soil cap as necessary

VCUP Program Phase 3

Phase 3 – Starts when Phase 2 ends (after 3 years or after 15 properties are developed (whichever is longer))

- Town manages Soil Management Program Contractor
- AR continues to accept lead soil at repository, funds account to pay incremental costs, pay other Town administrative costs
- Property owners continue to comply with Soil Management Regulations

Summarizing VCUP Program Phases

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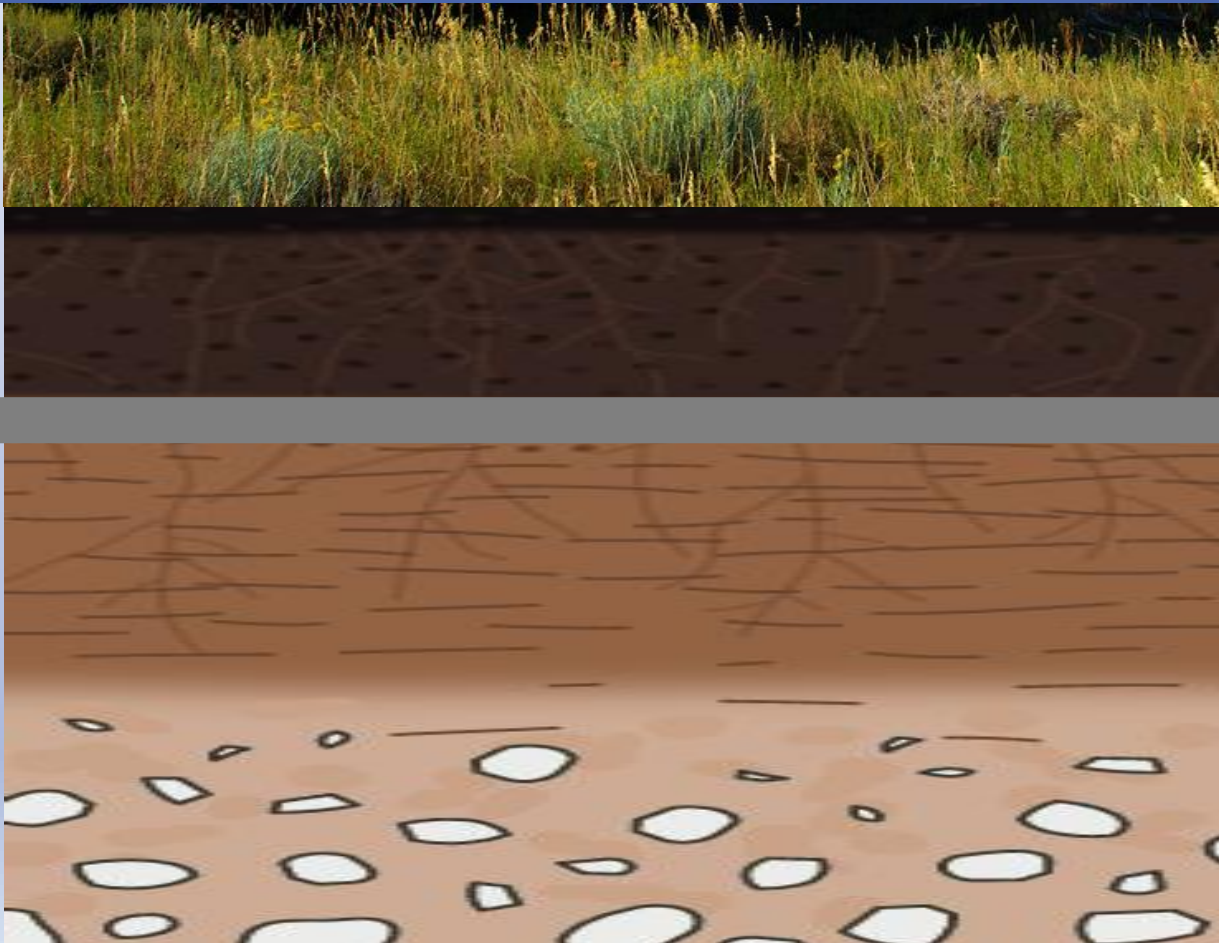
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Summarizing Typical VCUP Remediation



Revegetation

12 inches of clean soil

Commercial-grade fabric marker

Deeper soil (may also include backfilled soil removed from top 12 inches that has lead levels above action level)

Next Steps (each subject to consent of the Town)

CDPHE develops lead action levels (LALs) for consideration by Town and AR

AR and Town finalize VCUP Application and jointly submit to CDPHE

Town considers ordinance to add Soil Management Regulations to Land Use Code (consistent with procedures and usual process)

Town and AR negotiate and enter into funding agreement

Town and CDPHE enter into Intergovernmental Agreement (IGA)

VCUP Application, funding agreement, and IGA will be reviewed and may only be approved at public meetings

Q&A



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